

CLAIMS:

1. A woodworking machine comprising:

a blade selected from an operable range of sizes;

5 a detection system adapted to detect a dangerous condition between a person and the blade;

a brake adapted to stop the blade in response to detection of the dangerous condition; and

10 a brake positioning system configured to allow the brake to be selectively positioned in at least two different operable positions to accommodate at least two different blade sizes.

2. The woodworking machine of claim 1, where the brake positioning system

15 is configured to prevent installation of the blade if the brake is not in the operable position corresponding to the size of the blade.

3. The woodworking machine of claim 1, where the brake positioning system

20 is configured to prevent operation of the machine if the brake is not in the operable position corresponding to the size of the blade.

4. The woodworking machine of claim 1, where the brake positioning system is configured to prevent the brake from being positioned in an operable position that does not correspond to the size of the blade.

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5. The woodworking machine of claim 1, where the machine is a saw, and where the blade is a circular blade.

6. The woodworking machine of claim 1, where the brake positioning system is configured to be selectively positioned in at least two different operable positions at least one inch apart.

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7. A woodworking machine comprising:

- a working portion adapted to work when moving;
- a detection system adapted to detect a dangerous condition between a person and the working portion;

5 a reaction system associated with the detection system to cause a predetermined action to take place relative to the working portion upon detection of the dangerous condition, where the reaction system includes a component positioned adjacent the working portion; and

10 a positioning system adapted to allow the component to be positioned in more than one position adjacent the working portion to accommodate working portions of different sizes.

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8. A woodworking machine comprising:

a working portion adapted to work when moving;

means for detecting a dangerous condition between a person and the working portion;

5 reaction means associated with the detection system for causing a predetermined action to take place relative to the working portion upon detection of the dangerous condition; and

means for positioning at least a portion of the reaction means in more than one position adjacent the working portion to accommodate working portions of different sizes.

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9. A woodworking machine comprising:

a cutter adapted to cut a workpiece;

a motor adapted to drive the cutter;

a detection system adapted to detect a dangerous condition between a person and

5 the cutter;

a brake mechanism having a brake adapted to engage the cutter to stop the cutter;

10 a spacing detection system associated with the brake mechanism and adapted to detect whether the spacing between the cutter and the brake is within a predetermined range; and

15 a control system adapted to prevent operation of the motor if the spacing detected by the spacing detection system is out of the predetermined range.

10. The machine of claim 9, where the spacing detection system includes an

15 electronic sensor adapted to detect whether the spacing between the cutter and the brake is within a predetermined range.

11. The machine of claim 9, where the spacing detection system includes a

20 magnetic sensor adapted to detect whether the spacing between the cutter and the brake is within a predetermined range.

12. The machine of claim 9, where the spacing detection system includes an optical sensor adapted to detect whether the spacing between the cutter and the brake is within a predetermined range.

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13. The machine of claim 9, where the brake is mounted in a removable cartridge, and where the spacing detection system detects whether the spacing between the cutter and the brake is within a predetermined range by detecting whether the spacing between the cutter and the cartridge is within a predetermined range.

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14. A woodworking machine comprising:

a cutter;

a motor adapted to drive the cutter;

a brake adjustably positionable adjacent the cutter;

a sensor system adapted to sense the spacing between the cutter and the brake; and

a control system configured to control the operation of the motor and to receive a

signal from the sensor system representative of the spacing between the cutter and the

brake, where the control system is further configured to selectively prevent operation of

the motor dependent on the signal received from the sensor system.

15. A woodworking machine comprising:

a cutter adapted to cut a workpiece;

means for detecting a dangerous condition between a person and the cutter;

a brake configured to engage and stop the cutter;

5 means for detecting whether the spacing between the cutter and the brake is within

a predetermined range; and

means for preventing operation of the cutter if the spacing between the cutter and  
the brake is out of the predetermined range.

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